

***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

Applicant: Vladimir BARANOV et al.

Title: ELEMENTAL ANALYSIS OF  
TAGGED BIOLOGICALLY  
ACTIVE MATERIALS

Appl. No.: 10/614,115

Filing Date: 07/03/2003

Examiner:

Art Unit:

<b>CERTIFICATE OF MAILING</b>	
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Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to Pre-OG Notice from Office of Patent Legal Administration dated July 25, 2003, *Information Disclosure Statements May Be Filed Without*

*Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.*

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

**TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

**RELEVANCE OF EACH DOCUMENT**

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date October 30, 2003

By Barry Wilson

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Barry S. Wilson  
Attorney for Applicant  
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Substitute for form 1449B/PTO <b>O I P E INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> NOV 04 2003 (use as many sheets as necessary)				<b>Complete if Known</b>	
Sheet 1 of 4				Application Number	10/614,115
				Filing Date	07/03/2003
				First Named Inventor	Vladimir BARANOV
				Group Art Unit	
				Examiner Name	
				Attorney Docket Number	079012-0102

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
A1	4,313,734			Leuvering, J.H.W.	02-02-1982	
A2	4,411,993			Gillis, S.	10-25-1983	
A3	4,454,233			Wang, et al.	06-12-1984	
A4	4,543,439			Frackleton, et al.	09-24-1985	
A5	4,637,988			Hinshaw, et al.	01-20-1987	
A6	4,902,614			Wakabayashi, et al.	02-20-1990	
A7	5,521,289			Hainfeld, et al.	05-28-1996	
A8	5,907,034			Bosslet, et al.	05-25-1999	
A9	5,958,783			Josel, et al.	09-28-1999	
A10	6,140,638			Tanner, et al.	10-31-2000	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
A11		Baldwin, G.S., Hollande, F., Yang, Z., Karelina, Y., Peterson, A. Strang, R, Fourmy, D., Neumann, G., Shulkes, A. "Biologically active recombinant human progastrin 6-80 contains a tightly bound calcium ion." J. Biol. Chem 276: 7791-7796, 2001.	
A12		Bandura D.R., Baranov V.I. and Tanner S.D. "Effect of collisional damping and reactions in a dynamic reaction cell on the precision of the isotope ratio measurements." J. Anal. At. Spectrom., 15:921-928, 2000.	
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Examiner Signature	Date Considered
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Sheet

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Application Number	10/614,115
Filing Date	07/03/2003
First Name & Inventor	Vladimir BARANOV
Group Art Unit	
Examiner Name	

Attorney Docket Number 079012-0102

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	A14	Barlett, P. A. et al, "Synthesis of Water-Soluble Undecagold Cluster Compounds." J. Am. Chem. Soc., 100: 5085-5089, 1978.	
	A15	Bartel, et al., "Isolation of new ribozymes from a large pool of random sequences," Science, 261:1411-8, (1993).	
	A16	Binet M.R.B., Ma, R., McLeod, C. and Poole, R.K. 2001 Detection of zinc/cadmium binding proteins in <i>E. coli</i> by gel electrophoresis-laser ablation-inductively coupled plasma-mass spectrometry. Society for Experimental Biology Annual Meeting April 2-6 C1.158 Canterbury, UK	
	A17	Blake, D.A., Blake II, R.C., Khosraviani, M., Pavlov, A.R. "Immunoassays for metal ions." Analytica Chimica Acta 376:13-19, 1998.	
	A18	Bordes, A.L., Schollborn, B., Limoges, B., and Degrand, C. "Simultaneous detection of three drugs labelled by cationic metal complexes at a nafion-loaded carbon paste electrode." Talanta 48:201-208, 1999.	
	A19	Chen , X. Smith, L., Bradbury, E. "Site-specific mass tagging with stable isotopes in proteins for accurate and efficient protein identification." Anal. Chem. 72: 1134-1143., 2000.	
	A20	Cotton, F.A. and Wilkinson, G., 1972, Advanced Inorganic Chemistry: A Comprehensive Text, "Introduction to the Transition Elements," Interscience Publishers, p. 528-554.	
	A21	Darwish I.A. and Blake, D.A. "One-step competitive immunoassay for cadmium ions: development and validation for environmental water samples." Analytical Chemistry 73: 1889-1895, 2001.	
	A22	de Llano, J., Andreu, E., and Knecht, E. "Use of Inductively Coupled Plasma-Mass Spectrometry for the Quantitation of the Binding and Uptake of Colloidal Gold-Low Density Lipoprotein Conjugates by Cultured Cells." Analytical Biochm. 243: 210-217, 1996.	
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	A24	Ellington, et al., "In vitro selection of RNA molecules that bind specific ligands," Nature, 346(6287):818-822 (1992)	
	A25	Ellington, et al., "Selection <i>in vitro</i> of single-stranded DNA molecules that fold into specific ligand-binding structures," Nature, 355(6363):850-852 (1992)	

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Sheet 3

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	A26	Kohler, G and Milstein, C. "Continuous cultures of fused cells secreting antibody of predefined specificity." Nature 256: 495-497, 1975.	
	A27	Korth, C., Stierli, B., Streit, P., Moser, M., Schaller, O., Fischer, R., Schulz-Schaeffer, W., Kretzschmar, H., Raeber, A., Braun, U., Ehrenspurger, F., Hornemann, S., Glockshuber, R., Riek, R., Billerter, M., Wuthrich, K., and Oesch, B. "Prion (PrP <sup>Sc</sup> )-specific epitope defined by a monoclonal antibody." Nature, 390(6655), 74-77, 1997.	
	A28	Laffling, A.J., Baird, A., Birkett, C.R., and John, H.A. "A monoclonal antibody that enables specific immunohistological detection of prion protein in bovine spongiform encephalopathy cases." Neurosci. Lett. 300(2), 99-102, 2001.	
	A29	Lorsch, et al., "In vitro selection of RNA aptamers specific for cyanocobalamin," Biochem., 33(4):973-982 (1994).	
	A30	Nagaoka, M. and Maitani, T. "Binding patterns of co-existing aluminium and iron to human serum transferrin studied by HPLC-high resolution ICP-MS". Analyst 135: 1962-1965, 2000.	
	A31	Qiu, J., and Song, J. F. "A rapid polarographic immunoassay based on the anodic current of metal labeling" Anal. Biochem. 240: 13-16, 1996.	
	A32	Robertson, et al., "Selection in vitro of an RNA enzyme that specifically cleaves single-stranded DNA," Nature, 344(6265):467-468 (1990)	
	A33	Segond von Banchet, G., and Heppelmann, B. "Non-radioactive localization of substance P binding sites in rat brain and spinal cord using peptides labeled with 1.4 nm gold particles." J.Histochem.Cytochem. 43: 821-827, 1995.	
	A34	Tanner S.D., Baranov V.I. "A dynamic reaction cell for inductively coupled plasma mass spectrometry (ICP-DRC-MS). Part II. Reduction of interferences produced within the cell." JASMS, 10:1083-1094, 1999..	
	A35	Tanner S.D., Baranov V.I. and Vollkopf U. "A dynamic reaction cell for inductively coupled plasma mass spectrometry (ICP-DRC-MS). Part III. Optimization and analytical performance." J.Anal. At. Spectrom., 15: 1261-1269, 2000.	
	A36	Turek, et al., "Systematic evolution of ligands by exponential enrichment: RNA ligands to bacteriophage T4 DNA polymerase," Science, 249(4968):505-510 (1990)	

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	A37	Wagenknecht, T., Berkowitz, J., Grassucci, R., Timerman, A.P., and Fleischer, S. "Localization of calmodulin binding sites on the ryanodine receptor from skeletal muscle by electron microscopy." Biophys. J. 67: 2286-2295, 1994.	
	A38	Wenzel, T., and Baumeister, W. "Conformational constraints in protein degradation by the 20S proteasome." Nature Structural Biol. 2: 199-204, 1995.	
	A39	Wind, M., Edler, M., Jakubowski, N., Linscheid, M., Wesch, H., Lehmann, W. "Analysis of protein phosphorylation by capillary liquid chromatography coupled to element mass spectrometry with P <sup>31</sup> detection and to electrospray mass spectrometry." Anal. Chem. 73: 29-35, 2001.	

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